

SDMS Doc ID 2000780

Hoeing Company
6650 and Avenue
P.O. Box 700.
Canoga Park, CA 1309-7922

#### **CERTIFIED MAIL**

May 16, 2003 In reply refer to 2003RC01816

Gerard Abrams
Calif. Environmental Protection Agency
Dept. of Toxic Substances Control
Region 1
Facility Permitting Branch
8800 Cal Center Drive
Sacramento CA 95826-3200

Subject: Santa Susana Field Laboratory Corrective Action Program Quarterly

Progress Reports for EPA ID Numbers CAD093365435 (Rocketdyne),

CA1800090010 (NASA) and CAD000629972 (DOE)

Dear Mr. Abrams:

The Boeing Company, Rocketdyne (Rocketdyne) has enclosed the following progress reports as required by Hazardous Waste Facility Post-Closure Permits for Rocketdyne and NASA at the Santa Susana Field Laboratory (SSFL). In addition, Rocketdyne has included a progress report for the DOE Corrective Action sites in Area IV. Rocketdyne has submitted the reports in the format as it appears in Attachment I of the Rocketdyne and NASA permits. This reporting period is from February 16, 2003 through May 15, 2003.

Should you have any comments, please do not hesitate to let me know. I can be reached at (818) 586-5695.

Sincerely,

Art Lenox

**Environmental Remediation** 

AJL:bjc Enclosures

(SHEA-097531)

G. Abrams (2003RC01816) May 16, 2003 Page 2

A. Elliott/NASA

cc:

	<b>~~.</b>	12. 200001112012	( ••
		D. Hambrick/MWH	(with enclosures)
		L. Barrett/DTSC	(with enclosures)
		S. Baxter/DTSC	(with enclosures)
		P. Batarseh/DTSC	(with enclosures)
EX.		P. Bailey/DTSC	(with enclosures)
BOEING		K. Baker/DTSC	(with enclosures)
		M. Lopez/DOE/OAK	(with enclosures)
		✓J. Beach/EPA	(with enclosures)
		R. Marshall/CSUN, Oviatt Library	(with enclosures)
		D. Redfield/Simi Valley Library	(with enclosures)

J. Metzler/LA Public Library, Platt Branch (with enclosures)

(with enclosures)



# Santa Susana Field Laboratory RFI and CMS Projects Quarterly Progress Report EPA ID No.CAD 093365435 (Rocketdyne)

Rocketdyne Project Manager:

Art Lenox

Contractor Project Manager:

Dixie Hambrick

Report Period:

February 16 – May 15, 2003

#### 1. PROGRESS MADE THIS REPORT PERIOD

Soil and surface water sampling was performed during this period for the RCRA Facility Investigation (RFI). The majority of this field effort was for perchlorate characterization at and near the SSFL, and was performed in conjunction with DTSC. DTSC geologists selected sampling locations and collected split samples. In addition, limited soil sampling was performed at the Engineering Chemistry Laboratory (SWMU 6.1) site for RFI characterization. MWH collected a total of 50 soil matrix/surface water samples at 9 Rocketdyne sites during this reporting period (Table 1). Soil matrix and surface water sample analysis was conducted by Ceimic Laboratories, a California-certified laboratory located in Rhode Island. Surface water analysis for perchlorate was also conducted by Del Mar Analytical Laboratory, a California-certified laboratory located in Irvine. To date, approximately 1117 soil vapor (1204 analyses) and 2807 soil matrix/surface water samples (5885 analyses) have been collected from Rocketdyne locations during the RFI program (Table 2).

Field work for the near-surface groundwater investigation also was conducted this period. Two shallow piezometers were drilled and constructed at two Rocketdyne RFI sites. Site-wide water levels were measured and transducers installed at representative Rocketdyne shallow piezometer locations. Also, 28 near-surface groundwater samples were collected at and near Rocketdyne sites during this reporting period and analyzed at Ceimic Laboratories. To date, approximately 158 groundwater samples (263 analyses) have been collected from Rocketdyne locations during the RFI program (Table 2). Preparation of the Near-Surface Groundwater Characterization Report continued. This report will be comprehensive of the near-surface groundwater investigation findings at the SSFL.

A report regarding the spring and seep sampling results and findings was prepared and finalized.

Preparation of the draft B-1 Area (SWMU 4.1) and Instrument and Equipment Laboratories (SWMUs 4.3, 4.4) RFI reports continued.

DTSC, Rocketdyne, and MWH met several times this period to discuss the RFI nearsurface groundwater and soil investigations, risk assessments, DTSC Hazardous RFI Quarterly Progress Report EPA No. CAD093365435 (Areas I, III and IV) February 16 – May 15, 2003

Materials Laboratory (HML) data validation of the RFI samples, preliminary draft RFI reports and the RFI report schedule.

Validation of recent soil and water samples and conducting a program quality assurance (QA) review of soil sampling data are ongoing.

#### 2. SUMMARY OF FINDINGS

Perchlorate was detected in soil leachate and/or surface water samples collected at the Happy Valley (Area I AOC), Building 359 (Area I AOC), Compound A Facility (SWMU 6.4), and the Thermal Treatment Facility (SWMU 4.8) sites. These areas have been previously identified as known or suspected perchlorate use sites at the SSFL; perchlorate was not detected in all other samples at RFI sites or offsite.

Near-surface groundwater levels continued to rise during the Spring 2003 rainy season until May. Near-surface groundwater sampling results at the following Rocketdyne RFI sites were above regulatory action levels. These sampling results were similar to previous findings and will be summarized in the near-surface groundwater report.

- Instrument and Equipment Laboratories (SWMU 4.2/4.3): Volatile organic compounds (VOCs)
- Compound A Facility (SWMU 6.4): VOCs, 1,4-dioxane, metals (aluminum, antimony)
- STL-IV (SWMU 6.5): VOCs
- Happy Valley (Area I AOC): perchlorate

#### 3/4 SUMMARY OF PROBLEMS/ACTIONS TAKEN

DTSC completed an independent evaluation of the Columbia Analytical Services (CAS) Laboratory RFI data (USEPA Method 8021).

#### 5. PROJECT ACTIVITY NEXT PERIOD

Boeing will be involved with the following RFI activities during the next period:

- Continue data validation for Rocketdyne sites
- Complete near-surface groundwater sampling at Rocketdyne sites
- Continue to download transducer data at shallow piezometers
- Complete near-surface groundwater characterization report

RFI Quarterly Progress Report EPA No. CAD093365435 (Areas I, III and IV) February 16 – May 15, 2003

- Finalize the draft Surficial OU SRAM, Revision 1
- Finalize the B-1 Area (SWMU 4.1) and IEL (SWMUs 4.3/4.4) RFI site reports
- Finalize the Area I Landfill Work Plan
- Revise Happy Valley (including Building 359 AOC) Interim Measure Work Plan for perchlorate removal action

#### 6. PERSONNEL CHANGES

None.

#### 7. SUMMARY OF CONTACTS

None.

## 8. TREATMENT SYSTEM EFFECTIVENESS

No soil remediation treatment systems are in place or operational at this time.

#### 9. DATA REPORTS SUBMITTED

Spring and Seep Sampling and Analysis Report, Santa Susana Field Laboratory, Ventura County. March.

# Table 1 Rocketdyne Sampling Summary February 16, 2003 - May 15, 2003

<b>UNIT</b> Area I AOC	<b>Facility</b> Bldg 359 Sump	MATRIX W	Total Samples 6	Total Analyses 6	○ VOA, 8260	o TPH, 8015	○ SVOA, 8270SIM	O Metals, 6010/7000	o Lead	O PH, 9040/9045	<ul><li>Φ Perchlorate, 300M/314.0</li></ul>	o 1,4-Dioxane, 8260SIM
Area I AOC	Happy Valley	W	16	16	0	0	0	0	0	0	16	0
SWMU 4.3/4/AOC	Inst./Equip. Lab	W	1	2	0	0	0	0	1	0	1	0
SWMU 4.8	TTF	w	12	12	0	0	0	0	0	0	12	0
6.1/3/AOC	ECL	S	2	8	0	2	2	2	0	2	0	0
SWMU 6.4	Compound A	w	8	8	0	0	0	0	0	0	8	0
SWMU 6.5	STL-IV	w	2	2	0	0	0	0	0	0	2	0
SWMU 7.10	Bldg 5, PDU.	W	3	3	0	0	0	0	0	0	3	0
Area I, III, & IV	Various (26 wells)	GW	28	37	8	1	1	1	0	0	25	1
Total Soil		S	2	8	0	2	2	2	0	2	0	0
Total Water		W	48	49	0	0	0	0	1	0	48	0
Total Near-Surface	e Groundwater	GW	28	37	8	1	1	1	0	0	25	1
TOTAL			78	94	8	3	3	3	1	2	73	1
W = Water	V = Vapor by Method TO-1 GW = Near-surface ground samples (water, soil, vapor	dwater	lude samples on ho	old. Soil leachates a	re inclu	led as w	vater sar	mples				

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# Santa Susana Field Laboratory RFI and CMS Projects Quarterly Progress Report EPA ID No. CA1800090010 (NASA)

Rocketdyne Project Manager:

Art Lenox

Contractor Project Manager:

Dixie Hambrick

Report Period:

February 16 – May 15, 2003

#### 1. PROGRESS MADE THIS REPORT PERIOD

Limited surface water sampling was performed during this period for the RCRA Facility Investigation (RFI). This sampling was performed at the Area II Landfill (SWMU 5.1) in conjunction with DTSC, who selected sampling locations and collected split samples. MWH collected 1 surface water sample at this NASA site during this reporting period (Table 1). Surface water sample analysis was conducted by Del Mar Analytical Laboratory, a California-certified laboratory located in Irvine. To date, approximately 401 soil vapor (412 analyses) and 769 soil matrix/surface water samples (1244 analyses) have been collected from NASA locations during the RFI program (Table 2).

Field work for the near-surface groundwater investigation also was conducted this period. Two shallow piezometers were drilled and constructed at two NASA RFI sites. Site-wide water levels were measured and transducers installed at representative NASA shallow piezometer locations. Also, 12 near-surface groundwater samples were collected at and near DOE sites during this reporting period and analyzed at Ceimic Laboratories, a California-certified laboratory located in Rhode Island. To date, approximately 65 groundwater samples (111 analyses) have been collected from NASA locations during the RFI program (Table 2). Preparation of the Near-Surface Groundwater Characterization Report continued. This report will be comprehensive of the near-surface groundwater investigation findings at the SSFL.

A report regarding the spring and seep sampling results and findings was prepared and finalized.

DTSC, Rocketdyne, and MWH met several times this period to discuss the RFI near-surface groundwater and soil investigations, risk assessments, DTSC Hazardous Materials Laboratory (HML) data validation of the RFI samples, preliminary draft RFI reports and the RFI report schedule.

Validation of recent soil and water samples and conducting a program quality assurance (QA) review of soil sampling data are ongoing.

#### 2. SUMMARY OF FINDINGS

Lead was not detected in the surface water sample collected at the Area II Landfill (SWMU 5.2) site. Near-surface groundwater levels continued to rise during the Spring 2003 rainy season until May. Near-surface groundwater sampling results at the following NASA RFI sites were above regulatory action levels. These sampling results were similar to previous findings and will be summarized in the near-surface groundwater report.

- Storable Propellant Area (SPA, Area II AOC): 1,4-dioxane
- Delta Test Area (SWMU 5.23): bis-2-ethylhexyl-phthalate

#### 3/4 SUMMARY OF PROBLEMS/ACTIONS TAKEN

DTSC completed an independent evaluation of the Columbia Analytical Services (CAS) Laboratory RFI data (USEPA Method 8021).

## 5. PROJECT ACTIVITY NEXT PERIOD

Boeing will be involved with the following RFI activities during the next period:

- Continue data validation for NASA sites
- Continue to download transducer data at shallow piezometers
- Complete near-surface groundwater sampling at NASA sites
- Complete preparation of the near-surface groundwater characterization report
- Finalize the draft Surficial OU SRAM, Revision 1
- Finalize the ABFF (Area II AOC) RFI site report
- Prepare and finalize the Area II Landfill Work Plan

#### 6. PERSONNEL CHANGES

None.

#### 7. SUMMARY OF CONTACTS

None.

#### 8. TREATMENT SYSTEM EFFECTIVENESS

No soil remediation treatment systems are in place or operational at this time.

RFI Quarterly Progress Report EPA No. CA1800090010 (Area II) February 16 – May 15, 2003

# 9. DATA REPORTS SUBMITTED

Spring and Seep Sampling and Analysis Report, Santa Susana Field Laboratory, Ventura County. March.

Table 1 NASA Sampling Summary February 16, 2003 - May 15, 2003

UNIT	Facility	MATRIX	Total Samples	Total Analyses	VOA, 8260	TPH, 8015	SVOA, 8270SIM	Metals, 6010/7000	Lead	Perchlorate, 300M/314.0	1,4-Dioxane, 8260SIM
SWMU 5.1	Area II Landfill	W	1	2	0	0	0	0	1	1	0
Area II & III	Various (8 wells)	GW	12	30	7	5	6	5	0	6	1
Total Water		W	1	2	0	0	0	0	1	1	0
Total Near-Surface Gi	roundwater	GW	12	30	7	5	6	5	0	6	1
TOTAL			13	32	7	5	6	5	1	7	1
S = Soil W = Water Note - includes QA san	V = Vapor by Method GW = Near-Surface G	roundwater	clude samples	on hold. Soil lead	hates a	re inclue	ded as v	vater sa	mples		

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# Santa Susana Field Laboratory RFI and CMS Projects Quarterly Progress Report EPA ID No. CAD000629972 (Department of Energy)

Rocketdyne Project Manager:

Art Lenox

Contractor Project Manager:

Dixie Hambrick

Report Period:

February 16 – May 15, 2003

#### 1. PROGRESS MADE THIS REPORT PERIOD

Limited surface water sampling was performed during this period for the RCRA Facility Investigation (RFI). This sampling was performed at the Former Sodium Disposal Facility (FSDF, SWMU 5.3) in conjunction with DTSC, who selected sampling locations and collected split samples. MWH collected 3 surface water samples at this DOE site during this reporting period (Table 1). Surface water sample analysis was conducted by Del Mar Analytical Laboratory, a California-certified laboratory located in Irvine. To date, approximately 46 soil vapor (46 analyses) and 232 soil matrix/surface water samples (814 analyses) have been collected from DOE locations during the RFI program (Table 2).

Field work for the near-surface groundwater investigation also was conducted this period. Four shallow piezometers were drilled and constructed at two DOE RFI sites. Site-wide water levels were measured and transducers installed at representative DOE shallow piezometer locations. Also, 15 near-surface groundwater samples were collected at and near DOE sites during this reporting period and analyzed at Ceimic Laboratories, a California-certified laboratory located in Rhode Island. To date, approximately 42 groundwater samples (150 analyses) have been collected from DOE locations during the RFI program (Table 2). Preparation of the Near-Surface Groundwater Characterization Report continued. This report will be comprehensive of the near-surface groundwater investigation findings at the SSFL.

A report regarding the spring and seep sampling results and findings was prepared and finalized.

Draft RFI site reports for three DOE sites were finalized and submitted to DTSC this period: Old Conservation Yard (SWMU 7.4), Building 100 Trench (SWMU 7.5), and Metals laboratory Clarifier (Area IV AOC).

DTSC, Rocketdyne, and MWH met several times this period to discuss the RFI near-surface groundwater and soil investigations, risk assessments, DTSC Hazardous Materials Laboratory (HML) data validation of the RFI samples, preliminary draft RFI reports and the RFI report schedule.

RFI Quarterly Progress Report EPA No. CAD000629972 (Area IV) February 16 – May 15, 2003

Validation of recent soil and water samples and conducting a program quality assurance (QA) review of soil sampling data are ongoing.

Infiltration monitoring continued at FSDF (SWMU 7.3) this period.

#### 2. SUMMARY OF FINDINGS

Mercury and perchlorate were not detected in the surface water samples collected at the FSDF (SWMU 7.3) site. Near-surface groundwater levels continued to rise during the Spring 2003 rainy season until May. Near-surface groundwater sampling results at the following DOE RFI sites were above regulatory action levels. These sampling results were similar to previous findings and will be summarized in the near-surface groundwater report.

- FSDF (SWMU 7.3): Volatile organic compounds (VOCs), perchlorate
- HSMA (Area IV AOC): VOCs, metals (boron and antimony)

#### 3/4 SUMMARY OF PROBLEMS/ACTIONS TAKEN

DTSC completed an independent evaluation of the Columbia Analytical Services (CAS) Laboratory RFI data (USEPA Method 8021).

#### 5. PROJECT ACTIVITY NEXT PERIOD

Boeing will be involved with the following RFI activities during the next period:

- Continue data validation for DOE sites
- Continue to download transducer data at shallow piezometers
- Complete near-surface groundwater sampling at DOE sites
- Complete preparation of the near-surface groundwater characterization report
- Finalize the draft Surficial OU SRAM, Revision 1
- Prepare FSDF (SWMU 7.3) draft RFI site report
- Continue Infiltration Monitoring at FSDF
- Finalize the Building 56 Landfill Work Plan

#### 6. PERSONNEL CHANGES

None.

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## 7. SUMMARY OF CONTACTS

None.

## 8. TREATMENT SYSTEM EFFECTIVENESS

No soil remediation treatment systems are in place or operational at this time.

## 9. DATA REPORTS SUBMITTED

- Spring and Seep Sampling and Analysis Report, Santa Susana Field Laboratory, Ventura County. March.
- Old Conservation Yard (SWMU 7.4), RCRA Facility Investigation Report, Draft, Santa Susana Field Laboratory, Ventura County. February.
- Building 100 Trench (SWMU 7.5), RCRA Facility Investigation Report, Draft, Santa Susana Field Laboratory, Ventura County. February.
- Hazardous Materials Storage Area (Area IV AOC), RCRA Facility Investigation Report, Draft, Santa Susana Field Laboratory, Ventura County. February.

Table 1 DOE Sampling Summary February 16, 2003 - May 15, 2003

UNIT	Facility	MATRIX	Total Samples	Total Analyses	VOA, 8260	ТРН, 8015	SVOA, 8270SIM	Metals, 6010/7000	Mercury, 7471A	Perchlorate, 300M/314.0	Gross Alpha/Beta, 900.0	Gamma Spec, 901.1	Tritium, 906.0
SWMU 7.3	FSDF	W	3	6	0	0	0	0	3	3	0	0	0
Area IV	Various (7 wells)	GW	15	57	10	7	7	7	0	5	7	7	7
Total Water		W	3	6	0	0	0	0	3	3	0	0	0
Total Near-Surface Gi	roundwater	GW	15	57	10	7	7	7	0	5	7	7	7
TOTAL			18	63	10	7	7	7	3	8	7	7	7
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Table 2 RFI Sampling Summary May 1995 - May 15, 2003

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